

Discovering Curves and Surfaces with Maple®. By Grażyna Klimek and Maciej Klimek. Springer, New York. (1997). 217 pages. \$49.00, DM 86.00, öS 627.80, sFr 78.50, GBP 28.00 (diskette included).

Contents:

Introduction. 1. Maple preliminaries. 2. Two-dimensional plots. 3. Geometric manipulation. 4. Three-dimensional plots. 5. Functions and procedures. 6. Animations. 7. The plottools package. 8. Specialized graphics. 9. Saving and exporting Maple graphics. Index.

Fractals and Scaling in Finance: Discontinuity, Concentration, Risk, Selecta Volume E. By Benoit B. Mandelbrot. Springer, Berlin. (1997). 551 pages. \$39.95, DM 84.00, öS 613.20, sFr 76.50, GBP 32.50.

Contents:

Foreword by Ralph E. Gomory. I. Nonmathematical presentations. Preface (1996). E1. Introduction (1996). E2. Discontinuity and scaling: Scope and likely limitations (1996). E3. New methods in statistical economics (M 1963e). E4. Sources of inspiration and historical background (1996). II. Mathematical presentations. E5. States of randomness from mild to wild, and concentration in the short, medium and long run (1996). E6. Self-similarity and panorama of self-affinity (1996). E7. Rank-size plots, Zipf's law, and scaling (1996). E8. Proportional growth with or without diffusion, and other explanations of scaling (1996). Appendices (M 1964a, M 1974d). E9. A case against the lognormal distribution (1996). III. Personal incomes and firm sizes. E10. L-stable model for the distribution of income (M 1960i). Appendices (M 1963i, M 1963j). E11. L-stability and multiplicative variation of income (M 1961e). E12. Scaling distributions and income maximization (M 1962q). E13. Industrial concentration and scaling (1996). IV. The M 1963 model of price variation. E14. The variation of certain speculative prices (M 1963b). Appendices (Fama & Blume 1996, M 1972b, M 1982c). E15. The variation of the price of cotton, wheat, and railroad stocks, and of some financial rates (M 1967j). E16. Mandelbrot on price variation (Fama 1963). (A guest contribution by E.F. Fama). E17. Comments by P.H. Cootner, E. Parzen & W.S. Morris (1960s), and responses (1996). E18. Computation of the L-stable distributions (1996). V. Beyond the M 1963 model. E19. Nonlinear forecasts, rational bubbles, and martingales (M 1966b). E20. Limitations of efficiency and martingales (M 1971e). E21. Self-affine variation in fractal time (Section 1 is by W.H. Taylor) (M & Taylor 1967, M 1973c). Cumulative bibliography. Index.

Windows NT File System Internals: A Developer's Guide. By Rajeev Nagar. O'Reilly, Sebastopol, CA. (1997). 774 pages. \$49.95.

Contents:

Preface. I. Overview. 1. Windows NT system components. 2. File system driver development. 3. Structured driver development. II. The managers. 4. The NT I/O manager. 5. The NT virtual memory manager. 6. The NT cache manager I. 7. The NT cache manager II. 8. The NT cache manager III. III. The drivers. 9. Writing a file system driver I. 10. Writing a file system driver II. 11. Writing a file system driver III. 12. Filter drivers. IV. The appendixes. A. Windows NT system services. B. MPR support. C. Building kernel-mode drivers. D. Debugging support. E. Recommended readings and references. F. Additional sources for help. Index.

Urban Travel Demand Modeling: From Individual Choices to General Equilibrium. By N. Oppenheim. John Wiley & Sons, Inc., New York. (1995). 480 pages. \$69.95.

Contents:

1. Introduction: Modeling urban travel demand. 2. Modeling travelers' decisions as discrete choices. 3. Route choice on uncongested networks. 4. Combined travel demand modeling under uncongested conditions. 5. Route choice modeling under congested conditions. 6. Combined travel demand modeling under congested conditions. 7. Model parameter estimation. 8. Joint equilibrium modeling of activity and travel systems. 9. Optimal transportation supply. Appendixes. A. Mathematical background. B. Solutions to selected exercises. C. Alphabetical list of symbols. Bibliography. A final note. Author index. Subject index.

Multimedia Information Retrieval: Content-Based Information Retrieval from Large Text and Audio Databases. By Peter Schäuble. Kluwer Academic Publishers, Boston. (1997). 190 pages. \$87.75, NLG 175.00, GBP 57.75.

Contents:

Preface. 1. Introduction. 2. Probabilistic retrieval. 3. Text retrieval. 4. Automatic speech recognition. 5. Speech retrieval. 6. Case study: Retrieving scanned library cards. 7. Integrating information retrieval and database functions. 8. Outlook. Appendix. Theorems and proofs. Bibliography. Index.

Information Systems and Data Compression. By Jerzy A. Seidler. Kluwer Academic Publishers, Boston. (1997). 472 pages. \$160.00, NLG 335.00, GBP 108.80.

Contents:

Preface. Notation. I. Basic concepts. 1. Basic functions and structures of information systems. 2. Examples of information systems. II. States of systems. 3. Concrete state of a system. 4. Statistical state of a system. 5. Statistical relationships. III. Data compression and optimization of information systems. 6. Lossless compression of information. 7. Dimensionality reduction and quantization. 8. Structures and features of optimal information systems. Index.